IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A composition comprising nanoscale pyrogenically produced zinc oxide powder having a BET surface area of 10 to 200 m^2/g, wherein said composition is in the form of aggregates of anisotropic primary particles and that the aggregates display an average diameter of 50 to 300 nm, wherein the aggregates comprise a mixture of nodular primary particles and acicular primary particles, whereby the ratio of nodular to acicular primary particles is between 99:1 and 1:99.

Claim 2 (Cancelled).

Claim 3 (Previously Presented): A composition according to claim 1, wherein the nodular primary particles display an average diameter of 10 to 50 nm and the acicular primary particles a length of 100 nm to 2000 nm and a width of 10 nm to 100 nm.

Claim 4 (Previously Presented): A composition according to claim 1, wherein the aggregates display a largely anisotropic structure, defined by a shape factor F(circle) of below 0.5.

Claim 5 (Previously Presented): A composition according to claim 1, wherein the oxygen concentration at the surface of the powder as non-desorbable moisture in the form of Zn-OH and/or $Zn-OH_2$ units, determined by XPS analysis of the oxygen signals at 532 to 533 eV and 534 to 535 eV, is at least 40%.

Claim 6 (Previously Presented): A composition according to claim 1, wherein the transmission at a wavelength of 310 nm and 360 nm is no more than 60%.

Claim 7 (Previously Presented): A composition according to claim 1, wherein the bulk density is between 40 and 120 g/l.

Claim 8 (Currently Amended): Process for the production of the composition according to claim 1, wherein zinc powder is converted to zinc oxide powder in four successive reaction zones, evaporation zone, nucleation zone, oxidation zone and quench zone,

whereby in the evaporation zone the zinc powder conveyed there by an inert gas stream is evaporated in a flame of air and/or oxygen and a fuel gas, preferably hydrogen, under the proviso that the reaction parameters are chosen such that oxidation of the zinc does not occur,

and whereby in the nucleation zone, where the hot reaction mixture, consisting of zinc vapor, water vapor as a reaction product of the flame reaction and optionally excess fuel gas, arrives from the evaporation zone, it cools to temperatures below the boiling point of zinc or is cooled by means of an inert gas,

and whereby in the oxidation zone the mixture from the nucleation zone is oxidized with air and/or oxygen,

and whereby in the quench zone the oxidation mixture is cooled to temperatures of below 400°C by addition of cooling gas;

wherein the zinc oxide powder is separated from the gas stream by means of a filter, cyclone, washer or other suitable separators.

Claim 9 (Currently Amended): Process according to claim 8, wherein in the evaporation zone, an excess of fuel gas is used, expressed in lambda values of 0.5 to 0.99~~, preferably 0.8 to 0.95~~.

Claim 10 (Currently Amended): Process according to claim 8, wherein the temperature in the evaporation zone is between 920°C and 2000°C and in the nucleation zone is between 500°C and 900°C~~, particularly preferably between 700°C and 800°C~~.

Claim 11 (Currently Amended): Process according to claim 8, wherein the cooling rate in the nucleation zone is between 100 Kelvin/seconds and 10000 Kelvin/seconds, ~~particularly preferably between 2000 Kelvin/seconds and 3000 Kelvin/seconds,~~ and in the quench zone is between 1000 Kelvin/seconds and 50000 Kelvin/seconds~~, particularly preferably between 5000 Kelvin/seconds and 15000 Kelvin/seconds~~.

Claim 12 (Currently Amended): Process according to claim 8 wherein the residence time in the evaporation zone is between 0.1 seconds and 4 seconds, ~~particularly preferably between 0.5 seconds and 2 seconds,~~ in the nucleation zone is between 0.05 seconds and 1.00 seconds, ~~particularly preferably between 0.1 seconds and 0.2 seconds,~~ in the oxidation zone is between 5 milliseconds and 200 milliseconds, ~~particularly preferably between 10 milliseconds and 30 milliseconds,~~ and in the quench zone is between 0.05 seconds and 1.00 seconds~~, particularly preferably between 0.1 seconds and 0.2 seconds~~.

Claim 13 (Previously Presented): Process according to claim 8 wherein air and/or oxygen and the fuel gas can be supplied to one or more points within the evaporation zone.

Claim 14 (Cancelled).

Claim 15 (Canceled).

Claim 16 (Previously Presented): A method for producing a sunscreen comprising adding the composition as claimed in claim 1 to a sunscreen formulation.

Claim 17 (Previously Presented): A sunscreen comprising the composition as claimed in claim 1.

Claim 18 (Previously Presented): A method for vulcanizing comprising adding a composition as claimed in claim 1 to a vulcanization process.

Claim 19 (Previously Presented): A vulcanizing agent comprising the composition as claimed in claim 1.

Claim 20 (Previously Presented): A method for dying or pigmenting inks comprising adding a composition as claimed as claim 1 to an ink.

Claim 21 (Previously Presented): A dye or pigment comprising the composition as claimed in claim 1.

Claim 22 (Previously Presented): A method for preparing synthetic resins comprising adding the composition as claimed in claim 1 to a synthetic resin formulation.

Claim 23 (Previously Presented): A method for producing a pharmaceutical or cosmetic preparation comprising adding a composition as claimed in claim 1 to a pharmaceutical or cosmetic formulation.

Claim 24 (Previously Presented): A method for producing ceramics comprising adding the composition as claimed in claim 1 as a ceramic raw material in a ceramic formulation.

Claim 25 (Previously Presented): A ceramic raw material comprising the composition as claimed in claim 1.

Claim 26 (Previously Presented): A method for producing a catalyst comprising adding the composition as claimed in claim 1 to a catalyst formulation.

Claim 27 (Previously Presented): A catalyst comprising the composition as claimed in claim 1.

Claim 28 (New): Process according to claim 9, wherein the excess of fuel gas, expressed in lambda values is from 0.8 to 0.95.

Claim 29 (New): Process according to claim 10, wherein the temperature in the nucleation zone is between 700°C and 800°C.

Claim 30 (New): Process according to claim 11, wherein the cooling rate in the nucleation zone is between 2000 Kelvin/seconds and 3000 Kelvin/seconds.

Claim 31 (New): Process according to claim 11, wherein the cooling rate in the, quench zone is between 5000 Kelvin/seconds and 15000 Kelvin/seconds.

Claim 32 (New): Process according to claim 12 wherein the residence time in the evaporation zone is between 0.5 seconds and 2 seconds.

Claim 33 (New): Process according to claim 12 wherein the residence time in the nucleation zone is between 0.1 seconds and 0.2 seconds.

Claim 34 (New): Process according to claim 12, wherein the residence time in the oxidation zone is between 10 milliseconds and 30 milliseconds

Claim 35 (New): Process according to claim 12, wherein the residence time in the quench zone is between 0.1 seconds and 0.2 seconds.